

## ABSTRACT OF THE DISCLOSURE

In the joint construction of cobalt-based alloy, a cobalt-based alloy layer 1, in which granular or massive eutectic carbide 2 disperses, is joined to a metal of a base metal 37 via an insert metal layer 36. For the joint construction of cobalt-based alloy, liquid phase diffusion bonding is performed at a temperature of 1100°C for a retention time of 1 hour with an insert metal with a thickness of about 40  $\mu\text{m}$  being interposed between the base metal, which is S45C carbon steel, and a cobalt-based alloy material which has granular or massive eutectic carbide with a grain size not larger than 30  $\mu\text{m}$  in a matrix of cast structure and contains 1.03 wt% C, 29.73 wt% Cr, 3.86 wt% W, 2.59 wt% Ni, 2.67 wt% Fe, 0.59 wt% Si, and 0.07 wt% Mo, the balance substantially being Co. The cobalt-based alloy layer 1 after bonding contains granular or massive eutectic carbide.